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An ECG every 3 years is enough to follow patients with myotonic dystrophy

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Patients (pts) with type I myotonic dystrophy (MD) were reported as at high risk of arrhythmias, mainly conduction disturbances. The purpose of the study was to evaluate the mean time of change of noninvasive investigations and to propose recommendations for the follow-up of patients with MD.

Methods: 129 asymptomatic pts, mean age 41 ± 14 years, with MDI, were consecutively recruited. ECG, left ventricular ejection fraction (EF) determination, Holter monitoring, were obtained and repeated each year in pts without conduction abnormalities. Electrophysiological study (EPS) was performed in 51 pts. Follow-up duration ranged from 1 to 23 years, with a mean duration of 10 ± 5 years.

Results: At initial study, ECG and Holter monitoring were normal in 72 and 89 pts; EF was normal in all but 6 pts (60 ± 10.5 %). At the last study, the ECG did not change in 65 % of pts; in 49 pts with normal ECG, the ECG remained normal in 32 pts; first degree (d) AV block (B) developed in 11 pts, left hemiblock (HB) in 3 pts, complete bundle branch block (BBB) in 3 pts; 3 pts with a BBB developed another localization of conduction disturbance. HV increase was noted in patients with first d AVB and HB or BBB, and never in pts with normal ECG. Initially normal Holter monitoring ($n=61$) remained normal in 44 pts (72 %); sinus pauses were noted in 6 pts and non sustained ventricular tachycardia in one pt. In 19 pts with initial abnormalities, Holter monitoring became normal in 10 of them. LVEF did not change significantly (61 ± 11 at first study, 58 ± 11 % at 2nd study). The ECG modifications developed after a mean follow-up of 5 ± 1 years. The shorter time of the occurrence of a significant modification was 4 years. However, to be sure to detect a significant change and risk of arrhythmias, a period of 3 years (5 ± 2 standard deviations) could be retained.

Conclusions: HV increase was noted only in patients with abnormal ECG. No change of ECG was noted in patients with normal ECG before 4 years. The repetition of ECG every 3 years is recommended and EPS should be indicated when ECG became abnormal.

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Does the physical examination still have a role in patients with potential chronic heart failure?

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Objective: Define the prognosis value of the congestive clinical signs of heart failure (CHF) in an out-patient clinic compared to other clinical variables.

Background: Clinical examination is non-specific to diagnose CHF. However the prognosis value of the clinic signs of CHF is unknown.

Methods: Analysis of referrals to a community clinic of suspected chronic heart failure with a clinical examination. Clinical signs of CHF were defined as no sign, fluid retention (FR; oedema, ascitis, hepatomegaly, jugular vein distension), lung crackles (LC) and their combination (FR+LC). Systolic heart failure was defined as LVEF $< 45\%$ (S-HF), CHF with normal ejection fraction was defined as LVEF $\geq 45\%$ and NT-proBNP $> 50 \text{ pmol.L}^{-1}$ (HeFNEF), others were defined as No-HF.

Results: Of 1881 patients referred, 853 patients had S-HF, 321 had HeFNEF and 707 No-HF. Their median (IQR) age was 72yrs (64-78), LVEF was 47% (35-59) and 40% were women. 1207 patients had no clinical signs of CHF of whom 41% were SHF and 16% HeFNEF, 85 had LC of whom 43% were S-HF and 20% HeFNEF, 417 had FR of whom 49% had S-HF and 21% HeFNEF and 172 had LC+Prof whom 43% had S-HF and 16% HeFNEF. Patients with LC+RF were more breathless, had more frequently an ischaemic heart disease and had a lower ejection fraction and a lower right ventricle function measured

by the tricuspid annular plane systolic excursion. During a median (IQR) follow up of 64 (44-76) months, mortality was 40%. In multivariable analysis, increasing age, NYHA class, heart rate, LC+FR, FR, ischaemic heart disease and chronic obstructive pulmonary disease predicted an adverse prognosis; increasing diastolic blood pressure and female sex predicted a better outcome. Using Kaplan Meier curves, LC and FR indicated a similar bad prognosis, LC+FR indicated the worse prognosis when all the patients were considered (log Rank=185, $p < 0.0001$), or the three HF groups separately.

Conclusion: Clinical signs of CHF are powerful predictors of prognosis in outpatient clinic. Presence of fluid retention and lung crackles showing the worse prognosis. These clinical signs should be assessed systematically to evaluate the prognosis in symptomatic patients.

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Patterns of acute heart failure in nonagenarians

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Background: Since heart failure (HF) often occurs in subjects > 70 y old and the population of Western countries is getting older, the incidence of HF is expected to dramatically increase in the future. However, limited information is available on HF in the extreme elderly.

Methods: We retrospectively studied patients > 90 y old patients admitted to our hospital for acute HF between 2007 and March 2010. Patients with incomplete clinical records were excluded. Main foci were : epidemiological data, initial presentation, results of routine biological and imaging tests and clinical outcome.

Results: 56 patients (mean age 94 [range 91-97], 60% female) were included. Cardiovascular risk factors were hypertension (75%), hypercholesterolemia (16%) and diabetes (7%). 56% of patients had no underlying cardiomyopathy while 16% had coronary artery disease, 13% had valve disease, 5% had hypertension and 10% had cardiomyopathy due to multiple factors. On presentation, mean creatinine was 163 mmol/L [79-317], hemoglobin was 11.5 g/dL [9.9-12.4], and BNP was 2617 pg/mL [128-14.574]. Mean ejection fraction was 46% [34-58]. The 3 main precipitating factors of acute HF were hypertension (23%), infection (23%) and acute coronary syndrome (20%). In 15% of patients, no reason for acute decompensation could be identified. More than 50% of patients were admitted to the ICU, 30% required breathing assistance and 5% required inotropic drugs. Average hospital stay was 6 days [2.9-9.5]. 63% of patients were discharged home; hospital mortality was 20%. Medical treatment at discharge included diuretics (90%), ACE inhibitors (60%) and beta-blockers (45%).

Conclusion: Acute HF in nonagenarians is associated with poor prognosis. Main characteristics are a preserved ejection fraction, no obvious underlying cardiomyopathy and infection and hypertension as precipitating factors.

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Predictors of outcome in heart failure with preserved ejection fraction

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Introduction: A heart failure with preserved ejection fraction (HFPEF) is present in half the patients with heart failure (HF); the prognosis in more recent studies has been shown to be essentially similar to that of systolic HF. The objective of our study is to define the clinical, biological and echocardiographic predictors of outcome in patients with HFPEF.

Material and methods: We included 1200 patients, admitted in Ibn Rochd Center of Cardiology from May 2006 to February 2010. HFPEF was defined as LVEF $\geq 45\%$ and receiving a loop diuretic for breathlessness. All patients were evaluated clinically with monitoring of blood pressure (BP), 6 min walk test and electrocardiogram. Two-dimensional echocardiography and laboratory tests were performed in all patients.

Results: Of 1200 patients, 63 (5.25%) had HFPEF; the median age was 66 years (42- 94) and 61.9% were men. 49.2% of the patients were hypertensive